ECO-STAT
ECONOMIC & STATISTICAL CONSULTANT

A Division of Marcum LLP

ANALYSIS OF EARNINGS PROJECTION TO

NOHEMI GONZALEZ

March 21, 2023

<u>SUMMARY</u>

In our analysis of this matter, we find the present value of Nohemi Gonzalez's expected earnings, had she not died on November 13, 2015, to be **$1,493,216**. Future earnings are adjusted to present value, based on U.S. dollar amounts in the year 2023

In calculating the above-noted expected wages, we assume that, had Nohemi lived, she would have entered the labor force in July 2016, and would have earned at the average earnings level of females in the United States with a bachelor's degree.

Any unreimbursed expenses incurred or to be incurred by Nohemi's family, such as for medical treatments, are not included in our economic analysis.

We have not considered recovery of Nohemi's pain and suffering, nor that of her family.

We reserve the right to amend this report, upon request, should we be presented with any new relevant information that would have a material effect on our analysis.

ECONOMIC REPORT

At the request of Megan Marchick Le, Esq., of The Berkman Law Office, LLC, we have projected Nohemi Gonzalez's earnings had she not died on November 13, 2015.

BACKGROUND

In connection with the above request, and by using standard economic and statistical references as well as current data sources, we learned the following information, all of which we assume to be true:

Nohemi Gonzalez was born on October 19, 1992.

Nohemi died on November 13, 2015 during a terrorist attack in Paris, France. At that time, she was 23.1 years old.

At the time of her death, Nohemi was in her last year of college at California State University at Long Beach, studying industrial design. Her mother, Beatriz Gonzalez, was born on October 10, 1968, and was 47.1 years old at the time of her daughter's death. Nohemi's two brothers are Reynaldo and Paul.

Nohemi's statistical life expectancy at the time of her death was an additional 59 years to the year 2074.9, at which time she would have been 82.1 years old [Source: National Vital Statistics Reports, Vol. 70, No. 19, March 22, 2022, Life Table for Females: United States, 2019].

NOHEMI GONZALEZ'S PROJECTED EARNINGS

We assume that, had Nohemi Gonzalez lived out her statistical life expectancy, she would have entered the labor force at age 23.7 in July 2016 after graduating with a bachelor's degree. Based on the information presented to us, and by using standard economic and statistical references as well as current data sources, we analyze and assess the following economic expectancies:

Earnings. At the time of her death, Nohemi Gonzalez was in her last year of college at California State University and was studying abroad. We project Nohemi's earnings, had she lived out her statistical life expectancy, based on the average earnings of females with a bachelor's degree in the United States from 2016 through 2020, as shown in the table below.

Year	Earnings
2016	$53,443
2017	54,511
2018	58,398
2019	59,645
2020	59,526

Source: U.S. Census Bureau, PINC-04 Educational Attainment – People 18 Year Old and Over by Total Money Earnings 2016 through 2020

Wage Growth Rate. The average earnings growth rate in the last twenty years in the U.S. labor market has been 2.6% per year. In the last ten years, the average earnings growth rate was 2.8% per year [Source: Federal Reserve Bank of St. Louis, FRED: Employment Cost Index, Wages and Salaries, Private Industry Workers]. We apply an average growth rate of 2.7% per year throughout the relevant time period.

Statistical Unemployment. We estimate Nohemi's earnings reduction rate for possible periods of statistical unemployment to be 3.1% of her earnings per year [Source: U.S. Bureau of Labor Statistics, Employment Status of the Civilian Population 25 Years and Over by Educational Attainment].

Taxes. We reduce Nohemi's earnings by a tax rate of 21.8% per year for federal and state income taxes and payroll taxes [Source: BNA Income Tax Planner].

Present Value (Discounting). The discount rate recognizes the value of money over time. An average rate of 4% is used for discounting Nohemi's expected future earnings to present value. This is a necessary adjustment for the interest-earning capacity of a monetary award [Source: Current and historical average yield of U.S. Treasury Notes and high-grade municipal bonds. www.govinfo.gov].

Relevant Time Period. The statistical worklife expectancy of Ms. Gonzalez at the age at which she would have graduated with a bachelor's degree was an additional 35.75 years to the year 2052, at which time she would have been 59.4 years old [Source: Skoog, Ciecka & Krueger, The Markov Process Model of Labor Force Activity 2012-17: Extended Tables of Central Tendency, Shape Percentile Point and Bootstrap Standard Errors, *Journal of Forensic Economics*, 28(1) 2019]. The table that follows shows the annual and cumulative present value of Nohemi Gonzalez's expected earnings from July 2016, the time she would have been expected to enter the labor force had she lived, to her statistical worklife expectancy age of 59.4.

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THE VALUE OF NOHEMI GONZALEZ'S EARNINGS

YEAR		AGE	WAGES	UNEMPLOYMENT EFFECTS	TAXES	ANNUAL INCOME	PRESENT VALUE	CUMULATIVE PV
Pre-Trial Income:								
2016	-a	24	$26,722	$828	$5,645	$20,248	$20,248	$20,248
2017		25	54,511	1,690	11,515	41,306	41,306	61,555
2018		26	58,398	1,810	12,336	44,252	44,252	105,806
2019		27	59,645	1,849	12,600	45,196	45,196	151,003
2020		28	59,526	1,845	12,574	45,106	45,106	196,109
2021		29	61,133	1,895	12,914	46,324	46,324	242,433
2022		30	62,784	1,946	13,263	47,575	47,575	290,008
2023	-b	31	26,866	833	5,675	20,358	20,358	310,366
Expected Post-Trial Income:								
2023	-b	31	37,613	1,166	7,945	28,501	28,501	28,501
2024		32	66,220	2,053	13,988	50,179	48,249	76,750
2025		33	68,008	2,108	14,366	51,533	47,646	124,396
2026		34	69,844	2,165	14,754	52,925	47,050	171,446
2027		35	71,730	2,224	15,152	54,354	46,462	217,908
2028		36	73,667	2,284	15,561	55,821	45,881	263,789
2029		37	75,656	2,345	15,982	57,329	45,308	309,096
2030		38	77,698	2,409	16,413	58,876	44,741	353,838
2031		39	79,796	2,474	16,856	60,466	44,182	398,020
2032		40	81,951	2,540	17,311	62,099	43,630	441,649
2033		41	84,163	2,609	17,779	63,775	43,084	484,734
2034		42	86,436	2,680	18,259	65,497	42,546	527,279
2035		43	88,769	2,752	18,752	67,266	42,014	569,293
2036		44	91,166	2,826	19,258	69,082	41,489	610,782
2037		45	93,628	2,902	19,778	70,947	40,970	651,752
2038		46	96,156	2,981	20,312	72,863	40,458	692,211
2039		47	98,752	3,061	20,861	74,830	39,952	732,163
2040		48	101,418	3,144	21,424	76,850	39,453	771,616
2041		49	104,156	3,229	22,002	78,925	38,960	810,576
2042		50	106,969	3,316	22,596	81,056	38,473	849,048
2043		51	109,857	3,406	23,206	83,245	37,992	887,040
2044		52	112,823	3,498	23,833	85,492	37,517	924,557
2045		53	115,869	3,592	24,476	87,801	37,048	961,605
2046		54	118,998	3,689	25,137	90,171	36,585	998,190
2047		55	122,211	3,789	25,816	92,606	36,128	1,034,318
2048		56	125,510	3,891	26,513	95,106	35,676	1,069,994
2049		57	128,899	3,996	27,229	97,674	35,230	1,105,224
2050		58	132,379	4,104	27,964	100,311	34,790	1,140,013
2051		59	135,954	4,215	28,719	103,020	34,355	1,174,368
2052	-c	59	34,906	1,082	7,374	26,450	8,481	1,182,850

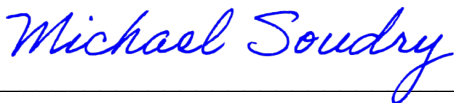*Economic Report*
to Nohemi Gonzalez

Case # 522558 (284228)

Pre-trial cumulative earnings of $310,366, plus post-trial cumulative earnings of $1,182,850, equal $1,493,216

NOTES TO EARNINGS TABLE:

a- Expected earnings since July 1, 2016
b- Based on an assumed trial date of June 1, 2023
c- Expected earnings to Nohemi's statistical worklife expectancy age of 59.4

CONCLUSION

From our economic analysis of the information presented to us, we project Nohemi Gonzalez's earnings had she lived out her statistical life expectancy to be **$1,493,216**. Future earnings are adjusted to present value, based on U.S. dollar amounts in the year 2023

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Table 28
Characteristics for Initially Active Women, Bachelor's Degree

Age	WLE Mean	Median	Mode	SD	SK	KU	10%	25%	75%	90%	WLE-B	SE-B
22	36.67	37.50	39.50	8.72	-0.66	3.83	25.50	31.50	42.50	46.50	36.65	0.22
23	35.75	36.50	38.50	8.67	-0.64	3.76	24.50	30.50	41.50	45.50	35.73	0.22
24	34.85	35.50	37.50	8.63	-0.62	3.70	23.50	29.50	40.50	44.50	34.83	0.22
25	33.95	34.50	36.50	8.58	-0.60	3.64	22.50	28.50	39.50	44.50	33.93	0.22
26	33.07	33.50	35.50	8.52	-0.59	3.59	21.50	28.50	38.50	43.50	33.05	0.22
27	32.21	33.50	34.50	8.45	-0.57	3.54	21.50	27.50	38.50	42.50	32.19	0.22
28	31.37	32.50	33.50	8.38	-0.56	3.49	20.50	26.50	37.50	41.50	31.34	0.22
29	30.54	31.50	32.50	8.30	-0.54	3.45	19.50	25.50	36.50	40.50	30.52	0.23
30	29.73	30.50	31.50	8.21	-0.52	3.41	18.50	24.50	35.50	39.50	29.71	0.22
31	28.93	29.50	31.50	8.11	-0.51	3.38	18.50	24.50	34.50	38.50	28.91	0.22
32	28.15	28.50	30.50	8.01	-0.49	3.35	17.50	23.50	33.50	37.50	28.13	0.21
33	27.38	28.50	29.50	7.90	-0.47	3.32	16.50	22.50	32.50	36.50	27.36	0.21
34	26.61	27.50	28.50	7.78	-0.45	3.29	16.50	21.50	31.50	35.50	26.59	0.20
35	25.85	26.50	27.50	7.66	-0.43	3.26	15.50	21.50	31.50	35.50	25.83	0.20
36	25.08	25.50	26.50	7.54	-0.41	3.22	15.50	20.50	30.50	34.50	25.06	0.20
37	24.31	24.50	25.50	7.42	-0.39	3.19	14.50	19.50	29.50	33.50	24.29	0.19
38	23.52	24.50	24.50	7.30	-0.36	3.15	13.50	19.50	28.50	32.50	23.51	0.20
39	22.74	23.50	24.50	7.19	-0.33	3.12	13.50	18.50	27.50	31.50	22.72	0.19
40	21.94	22.50	23.50	7.07	-0.31	3.08	12.50	17.50	26.50	30.50	21.93	0.19
41	21.15	21.50	22.50	6.95	-0.28	3.04	11.50	16.50	25.50	29.50	21.14	0.18
42	20.35	20.50	21.50	6.83	-0.24	3.00	11.50	16.50	25.50	28.50	20.35	0.18
43	19.56	19.50	20.50	6.71	-0.21	2.97	10.50	15.50	24.50	27.50	19.55	0.18
44	18.76	19.50	19.50	6.59	-0.17	2.93	9.50	14.50	23.50	26.50	18.75	0.17
45	17.96	18.50	18.50	6.47	-0.14	2.90	9.50	13.50	22.50	26.50	17.96	0.17
46	17.17	17.50	17.50	6.35	-0.10	2.87	8.50	13.50	21.50	25.50	17.16	0.18
47	16.37	16.50	16.50	6.23	-0.06	2.84	8.50	12.50	20.50	24.50	16.37	0.17
48	15.58	15.50	15.50	6.11	-0.02	2.81	7.50	11.50	19.50	23.50	15.58	0.17
49	14.79	14.50	14.50	5.98	0.03	2.79	6.50	10.50	18.50	22.50	14.79	0.17
50	14.01	14.50	13.50	5.85	0.07	2.77	6.50	9.50	17.50	21.50	14.01	0.16
51	13.24	13.50	13.50	5.72	0.12	2.76	5.50	9.50	17.50	20.50	13.24	0.16
52	12.48	12.50	12.50	5.58	0.17	2.76	5.50	8.50	16.50	19.50	12.48	0.16
53	11.73	11.50	11.50	5.45	0.22	2.77	4.50	7.50	15.50	18.50	11.73	0.16
54	11.00	10.50	10.50	5.30	0.28	2.78	4.50	7.50	14.50	18.50	11.00	0.16
55	10.29	10.50	9.50	5.15	0.33	2.80	3.50	6.50	13.50	17.50	10.28	0.16

Table 3. Life table for females: United States, 2019

Spreadsheet version available from: *https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/70-19/Table03.xlsx.*

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1	0.005045	100,000	504	99,559	8,138,598	81.4
1–2	0.000341	99,496	34	99,479	8,039,039	80.8
2–3	0.000209	99,462	21	99,451	7,939,561	79.8
3–4	0.000166	99,441	16	99,432	7,840,110	78.8
4–5	0.000137	99,424	14	99,417	7,740,677	77.9
5–6	0.000125	99,411	12	99,404	7,641,260	76.9
6–7	0.000112	99,398	11	99,393	7,541,855	75.9
7–8	0.000102	99,387	10	99,382	7,442,463	74.9
8–9	0.000096	99,377	10	99,372	7,343,081	73.9
9–10	0.000093	99,367	9	99,363	7,243,708	72.9
10–11	0.000095	99,358	9	99,353	7,144,346	71.9
11–12	0.000102	99,349	10	99,344	7,044,992	70.9
12–13	0.000116	99,339	12	99,333	6,945,649	69.9
13–14	0.000139	99,327	14	99,320	6,846,316	68.9
14–15	0.000170	99,313	17	99,305	6,746,996	67.9
15–16	0.000204	99,296	20	99,286	6,647,691	66.9
16–17	0.000241	99,276	24	99,264	6,548,405	66.0
17–18	0.000280	99,252	28	99,238	6,449,141	65.0
18–19	0.000319	99,224	32	99,209	6,349,902	64.0
19–20	0.000360	99,193	36	99,175	6,250,694	63.0
20–21	0.000404	99,157	40	99,137	6,151,519	62.0
21–22	0.000449	99,117	45	99,095	6,052,382	61.1
22–23	0.000490	99,072	49	99,048	5,953,287	60.1
23–24	0.000524	99,024	52	98,998	5,854,239	59.1
24–25	0.000553	98,972	55	98,945	5,755,241	58.2
25–26	0.000579	98,917	57	98,889	5,656,297	57.2
26–27	0.000608	98,860	60	98,830	5,557,408	56.2
27–28	0.000644	98,800	64	98,768	5,458,578	55.2
28–29	0.000690	98,736	68	98,702	5,359,810	54.3
29–30	0.000746	98,668	74	98,631	5,261,108	53.3
30–31	0.000808	98,594	80	98,555	5,162,477	52.4
31–32	0.000870	98,515	86	98,472	5,063,922	51.4
32–33	0.000933	98,429	92	98,383	4,965,450	50.4
33–34	0.000992	98,337	98	98,288	4,867,067	49.5
34–35	0.001049	98,240	103	98,188	4,768,778	48.5
35–36	0.001112	98,137	109	98,082	4,670,590	47.6
36–37	0.001178	98,028	116	97,970	4,572,508	46.6
37–38	0.001240	97,912	121	97,851	4,474,538	45.7
38–39	0.001295	97,791	127	97,727	4,376,687	44.8
39–40	0.001351	97,664	132	97,598	4,278,960	43.8
40–41	0.001414	97,532	138	97,463	4,181,362	42.9
41–42	0.001493	97,394	145	97,322	4,083,898	41.9
42–43	0.001593	97,249	155	97,171	3,986,577	41.0
43–44	0.001714	97,094	166	97,011	3,889,406	40.1
44–45	0.001851	96,928	179	96,838	3,792,395	39.1
45–46	0.002005	96,748	194	96,651	3,695,557	38.2
46–47	0.002172	96,554	210	96,449	3,598,906	37.3
47–48	0.002347	96,344	226	96,231	3,502,457	36.4
48–49	0.002534	96,118	244	95,996	3,406,226	35.4
49–50	0.002741	95,875	263	95,743	3,310,229	34.5
50–51	0.002964	95,612	283	95,470	3,214,486	33.6
51–52	0.003217	95,328	307	95,175	3,119,016	32.7
52–53	0.003519	95,022	334	94,855	3,023,841	31.8
53–54	0.003869	94,687	366	94,504	2,928,986	30.9
54–55	0.004246	94,321	401	94,121	2,834,482	30.1
55–56	0.004623	93,921	434	93,703	2,740,361	29.2
56–57	0.005000	93,486	467	93,253	2,646,658	28.3
57–58	0.005405	93,019	503	92,768	2,553,405	27.5
58–59	0.005853	92,516	542	92,245	2,460,638	26.6
59–60	0.006346	91,975	584	91,683	2,368,392	25.8